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1903/04

Jos. A. N. H.

Report of the President

OF THE

Board of Regents

OF THE

University of Idaho.

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OF THE
UNIVERSITY OF IDAHO



1903-1904.



Report of the President

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Board of Regents

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University of Idaho.



1903-1904.

University of Idaho, Office of the Board of Regents,
Moscow, Idaho, December 31, 1904.

To His Excellency, the Governor of Idaho:

Sir—I have the honor to present for your consideration the report of the Board of Regents of the University of Idaho for the period beginning January 1, 1903, and ending December 31, 1904.

CHAS. L. HEITMAN,
President Board of Regents.

Board of Regents:

Charles L. Heitman, President . . . Rathdrum
1903-1909

Mrs. W. H. Ridenbaugh, Vice-President . . . Boise
1903-1907

Geo. C. Parkinson, Secretary Preston
1903-1905

Edward S. Sweet Grangeville
1903-1907

James F. McCarthy Wallace
1903-1905

Executive Committee:

Charles L. Heitman

Mrs. Ridenbaugh

Geo. C. Parkinson

Treasurer:

W L. Payne Moscow

Report of the Board of Regents

OF THE

University of Idaho.

HISTORY.

1889. Jan 30—Governor Edward A. Stevenson approved the bill creating the University.
- April 25—First meeting of the Board of Regents at Boise.
- Purchase of 20 acres for campus from James Deakin for \$4,000.
1891. July 9—Contract for the erection of the Administration Building awarded.
- July 11—Resolution of Regents to comply with the provisions of Federal legislation respecting Agricultural Colleges and Experiment Stations.
- Oct. 5—Organization—
- College of Letters.
 - College of Agriculture.
 - Preparatory School.
 - Agricultural Experiment Station.
1892. Feb. 26—Resolution to establish sub-stations at Nampa, Idaho Falls and Grangeville.
- Aug. 5—West wing of Administration Building practically complete.
- Oct. 12—Opening day. Courses were mainly preparatory with two collegiate departments, viz.: Civil Engineering and Agriculture (Dec. 31).

1893. Collegiate Departments for 1893-94.

Civil Engineering.

Agriculture.

Chemistry.

Ancient and Modern Languages.

Botany.

Mining and Metallurgy.

Zoology.

Physics.

English.

Music.

Military Science and Tactics.

1896. Departments of Mathematics and Horticulture established.

Pursuant to ruling of Federal authorities
Agricultural Experiment Sub-stations abandoned.

Citizens of Moscow donated a farm of 95
acres for the Experiment Station.

1898. March—Sub-department of Rhetoricals established.

1899—Department of Political Science and History established.

1901. Organization—

1. College of Letters and Science.
2. College of Agriculture.
3. School of Engineering or Applied
Science.
4. Preparatory School.
5. Agricultural Experiment Station.

Department of Domestic Science established.

Contract for construction of School of Science and Ridenbaugh Hall awarded.

1902—University sewer system connected with city main by 2,800 feet of vitrified sewer pipe.

Department of Mechanical and Electrical Engineering established.

Office of President of the University and Director of the Experiment Station divided and a member of the Experiment Station Staff elected Director of the Station.

A member of the College Faculty appointed Dean of the Faculty.

1903. Purchase of 15 acres adjoining the campus from Mrs. Julia A. Moore at \$100 per acre.

Purchase of $1\frac{1}{2}$ acres from Persson for \$500 to be used as a site for the Armory and Gymnasium Building.

1904. Purchase of $24\frac{3}{4}$ acres adjoining the campus from Mrs. Julia A. Moore at \$100 per acre.

Construction of Armory and Gymnasium.

Construction of 950 feet of vitrified pipe sewer on the campus of the University, connecting the Armory and Gymnasium sewer system with the city main.

State Appropriations.

Year.	Maintenance.	Building.
1889	\$15,000 00	½ mill levy—Bldg. Fund.
1891	.....	¾ mill levy—Bldg. Fund.
1893	2,000 00	¾ mill levy—Bldg. Fund, including year 1895.
1895	13,246 00	
1897	17,969 14	
1899	20,000 00	\$14,000—Improvement Fund.
1901	22,000 00	\$50,000—Building Fund.
1903	50,000 00	\$43,000—Bldg & Improv. Fund.

*ORGANIZATION AND ATTENDANCE.**Table of Attendance.*

	Gradu- ates.	Col- lege.	Prepar- atory.	Special.	Total.
1892-1893 .....	..	6	127	..	133
1893-1894 .....	..	16	316	..	332
1894-1895 .....	..	28	183	..	211
1895-1896	4	42	244	..	286
1896-1897	5	65	153	..	218
1897-1898	8	87	161	..	248
1898-1899	7	79	104	..	183
1899-1900	10	106	120	31	257
1900-1901	33	139	111	79	329
1902-1903	9	140	139	34	313
1902-1903	30	146	162	30	338
1903-1904	14	151	198	40	389
1904-1905 (estimated)	15	175	165	65	405
Average age in Preparatory School.....					17.3
Average age in College					20.4
Average number in class in Preparatory School					38
Average number in class in College.....					18
Number of classes per week in Preparatory School					87
Number of lecture and laboratory periods per week in college					336

The attendance in College is larger but smaller in Preparatory, owing to the fact that the ninth grade with approximately 100 students has been eliminated from the Preparatory School.

The Faculty.

The Collegiate Faculty consists of all professors, acting professors, and associate professors of the college departments and the Principal of the Preparatory School. Regular faculty meetings are held on the first Friday of each month. The standing committees of the faculty are the committee on courses, attendance and discipline, student organizations and public events, library, museum, preparatory school and accredited schools. In matters of general student interest, for example, athletics, debate, public events, the faculty committee co-operates with the corresponding student committee.

The Committee on Attendance and Discipline—The Committee on Attendance and Discipline collects and tabulates weekly reports of attendance, and disciplines students on the basis of these reports by reprimands, putting on probation and by removal from class. The committee has authority to note the general conduct of students and in conference with the President to suspend from the University subject to the ratification of the Faculty.

The Committee on Secondary Schools—The Committee on Secondary Schools determines by personal visitation the character of instruction in schools applying for admission to the accredited list and makes recommendations to the Faculty. The members of the committee annually inspect the course of study of each accredited school.

The Committee on Courses—The Committee on Courses passes on all questions of detail pertaining to admission, class standing, election of studies, application for extra hours, and changes of courses, and prepares the time ta-

ble. Students who are delinquent or deficient in their studies are notified by the committee within six weeks after the beginning of each semester, and students who do not obtain at least eight credits in college work in a semester are dropped from the roll.

The Committee on Accredited Schools.

During the years 1903 and 1904 members of the Committee on Accredited Schools visited twenty-six of the high schools of the State, and on recommendation of the committee the following schools were accredited:

Boise,	Idaho State Acad., Pocatello,
Bellevue,	Idaho Falls,
Blackfoot,	Lewiston,
Bonner's Ferry,	Mountainhome,
Caldwell,	Nampa,
Coeur d'Alene,	Payette,
College of Idaho, Caldwell,	Pocatello,
Fielding Academy, Paris,	Rathdrum,
Genesee,	Sand Point,
Glenn's Ferry,	Shoshone,
Grangeville,	Wallace,
Harrison,	Wardner,
Hailey,	Weiser.

The visits to the preparatory schools of the State have resulted in good in several ways. The University now possesses knowledge of the character of the work done in each school and can accordingly determine the entrance credits to be given to the students. In the last two years quite a number of these schools have increased their courses from three to four years. It is believed that the visits of the inspectors have had not a little to do with this gratifying

increase of the period of preparation for college work and for life. Then, too, personal relations have been established between the schools and the University that have already resulted in benefit, both to the University and to the high schools.

RAILROAD RATES.

Your Board has given considerable attention to the matter of securing special railroad rates for parties of students from Southern and Southeastern Idaho. It was a matter of common knowledge that the cost of transportation deterred a large number of students annually from taking a college course and operated as a heavy tax on the resources of Southern Idaho students. We are therefore glad to report the concession of special rates to students from Southern and Southeastern Idaho by the Oregon Railroad and Navigation Company and the Oregon Short Line which has resulted in a considerable increase in the attendance from those parts of the State. In view of the results we hope that these student rates will be generally adopted by the railroads as a permanent policy.

*PROPERTY AND INSURANCE.**Value of Property—Grounds.*

	Area in acres.	Condition.	Purchase price.
Original purchase.....	20	Campus in grass.....	\$4,000
Moore purchase.....	15	Unimproved.....	1,500
Persson purchase.....	1½	Unimproved.....	500
Farm (donated)	95	Good farm land—value.....	7,125
Moore purchase	24¾	Unimproved	2,476
Total.....			\$15,601

Buildings.

		Cost.
Administration.....	Brick .....Offices and gen'l college purposes..	\$200,000
School of Mines.....	Brick . ....Depts. ming. and mec. and elec.eng.	27,167
Ridenbaugh Hall.....	Brick .....Ladies' dormitory..	27,167
Greenhouse	Stone and glass..Laby. for station }	2,500
Horticultural.....	Frame .....Hort. dept..... }	
Annex	Frame .....Arm'ry, cr'mry, etc.	1,500
Horticultural barn	Frame .....Barn.....	270
Farm house	Frame .....Foreman's dwlng..	1,200
Farm barns and piggery	Barns.....	3,325
Armory and Gymnasium..	Brick	22,866
Total		\$285,995

Table of Insurance.

Building.	Amount.	Rate.
Administration Building	\$ 87,000 00	1.80
Engineering Hall	20,000 00	2.10
Dormitory	20,000 00	2.60
Armory and Gymnasium	10,000 00	2.50
Contents Administration Building	18,500 00	1.80
Greenhouse	2,000 00	2.80
Annex	2,300 00	5.50
Experiment Station Dwelling	600 00	2.00
Experiment Station Barn	2,000 00	4.50
Total insurance	\$162,400 00	

All policies run for three years.

THE HEATING SYSTEM.

The University Buildings are heated by four separate heating plants—that of the Administration Building, the Engineering Building, the Horticultural Building and the Armory and Gymnasium. As they differ essentially in details each will be described separately.

The first plant installed was that of the Administration Building. This is a low pressure plant heating by direct radiation. The plant consists of two 45 H. P. horizontal multitubular boilers, installed respectively in 1892 and 1894, which are still in good condition. The piping system is designed on the single pipe or continuous circuit system with single riser and single radiator valve for each radiator. At present, wood is used as a fuel and during the years 1903 and 1904 300 cords of wood were consumed.

The heating plant of the Engineering Building, used also for heating Ridenbaugh Hall, is a combined high and low pressure heating and power plant, heating by direct radiation. The plant consists of two 45 H. P. horizontal multitubular boilers, both installed in 1902 at the time of the construction of the Engineering Building. On account of the plant being used both for power purposes and for heating Ridenbaugh Hall steam is generated at high pressure and is reduced by pressure regulators before passing into the heating mains. The steam for the heating of the Engineering Building is reduced at a point near the boilers and is distributed at low pressure, 10 pounds or less, depending upon weather conditions. The steam for the low pressure heating system in Ridenbaugh Hall is transmitted at boiler pressure by means of a 2-inch high pressure main, 245 feet in length, to a pressure regulator

placed just within the walls of the building. From here it is distributed at low pressure to the radiators. The low pressure piping system of the Engineering Building and Ridenbaugh Hall are designed on the single pipe or continuous circuit system with single riser and single radiator valve for each radiator.

The boiler plant of the Engineering Building is also used to operate the 60 H. P. engine installed in that building and provision has been made for the utilization of the exhaust steam from this engine for heating purposes. This has been arranged by a connection between the exhaust pipe of the engine and the low pressure mains of the Engineering Building and the placing of a back pressure valve in the main exhaust pipe leading to the roof. When the engine is running sufficient steam is usually supplied for the heating of the building, without drawing steam directly from the boilers.

The Horticultural Building is heated by hot water, using a "Tropic" hot water heater. Coal is used as a fuel for this and the Engineering Building, and during the years 1902-1904 500 tons of Roslyn coal were consumed.

The Armory and Gymnasium is to be heated by hot water, a first-class plant being in process of installation.

Following is the general data of the heating plants:

Administration Building, total cubic feet heated	575,280
Engineering Building, total cubic feet heated	216,000
Ridenbaugh Hall, total cubic feet heated	114,115
Horticultural Building, total cubic feet heated	9,820
Greenhouse, total cubic feet heated.....	7,200
	Feet.
Administration Building, average distance heat carried	130
Administration Building, maximum distance heat carried	275
Engineering Building, average distance heat carried	86
Engineering Building, maximum distance heat carried	172
Ridenbaugh Hall, average distance heat carried	128
Ridenbaugh Hall, maximum distance heat carried	259

Above distances given for Ridenbaugh Hall are for low pressure piping. Length of high pressure main from boiler to reducing regulator at Ridenbaugh Hall, 245 feet.

THE LIGHTING SYSTEM.

All buildings on the campus are lighted by electricity, using 110 volt lamps, supplied with power at present from the mains of the Moscow Electric Light and Power Plant. Altogether 450 lamps are used, distributed as follows:

Administration Building	223
Engineering Building	60
Ridenbaugh Hall	150
Horticultural Building	5
Annex	10
Barn	2

These buildings are also connected with the University power plant which has on several different occasions supplied light during temporary defects of the city supply. Up to the present time it has not been found advisable to depend entirely on our own power for lighting.

Until October, 1903, the University paid 20 cents per watt-hour for light. Since that time, however, the following sliding scale of rates has been secured:

14 cents per 1,000 watt-hours for the first 500,000 watt-hours.
12 cents per 1,000 watt-hours for the next 200,000 watt-hours.
10 cents per 1,000 watt-hours for all over 700,000 watt-hours.

The new Armory and Gymnasium, when complete, will contain approximately 140 lamps, which will considerably increase the present heavy expense connected with the University lighting system.

THE SEWERAGE SYSTEM.

Since our last report the only new feature in connection with our sewerage system is the Gymnasium sewer. The site of the new Gymnasium is below the city sewer system

at its nearest point, hence to make the connection it was necessary to run 950 feet to the manhole on University avenue, west of Elm street. The sewer was expensive on account of the depth necessary in cutting through the high ground on the north line of the campus, where for nearly 200 feet this depth exceeded 15 feet. The line was well constructed of six and eight-inch pipe, with lamp holes, man holes and flush tank, at the contract price of \$918.90, by Naylor & Norlin of Lewiston.

THE ARMORY AND GYMNASIUM.

Pursuant to the recommendation of the Board of Regents the Legislature in 1903 granted an appropriation of \$25,000 for the construction of a new Armory and Gymnasium on the campus of the University. As soon as the grant was made steps were immediately taken to secure plans and the Board of Regents offered a cash prize for the most appropriate plans presented. The plans were examined at their annual meeting in June, but as none were found to meet the requirements, the offer was withdrawn. Negotiations were continued for some time and in July Mr. J. E. Tourtellotte of Boise succeeded in presenting plans which were satisfactory to the Board. Specifications in accordance with his plans were at once prepared and subsequently advertisements were placed in representative newspapers of the State and in the Spokesman Review of Spokane. In response to these advertisements the following bids were submitted and opened at a meeting of the Board held at Moscow in May, 1904.

Bids for Armory and Gymnasium.

Collins & Walker, Lewiston	\$28,896 00
J. J. Anthony, Moscow.....	28,000 00
Michel & Webber, Boise	25,800 00
Ledoux & Son, Lewiston	25,333 00
Lauder, Zeigler & Glese, Moscow.....	24,745 00
Williams & Griffin, Nampa	22,641 00

The bid of Messrs. William & Griffin being the lowest, a contract was made with them at the price of \$22,866, the additional \$225 being added to cover alterations proposed by the architect. The contractors were obliged to give bonds of \$8,000.00 as required by law, the Title Guaranty and Trust Company of Scranton, Pa., being surety. Although the building is not yet completed, yet work on it has progressed to an extent sufficient to warrant a short description of its main features.

The new building is situated on the west side overlooking the University campus at a distance of about seventy yards from the Main Building. It is a commodious, rectangular structure of red brick with a ground plan of 129x64 feet. The foundation is of granite rubble, the underpinning and basement story of basalt, with window and door trimmings, base and sill courses of gray Tenio stone. The total height from the grade to the top of the cupola is 60 feet.

In the basement are two large rooms to be used for the storage of arms and ordnance, for the careful preservation of which a heavy bond has always been required by the War Department. There is also an abundance of hot and cold shower baths, and locker rooms for ladies and gentlemen all thoroughly equipped in a modern way with steam heat and electric lights.

On either side of the entrance to the ground floor are an

ple quarters for the Military Instructor and his staff and the instructor in Physical Culture. Further in are the Spectators' Hall and the Gymnasium proper. The gymnasium has a floor space of 109x58 feet of good and elastic construction, suitable for the evolutions of a company of infantry and in which a battalion of four companies can be formed in military order. Suitable equipment of apparatus for physical culture and indoor athletics will be supplied as soon as a fund is provided for that purpose. The main hall and its adjoining rooms will be a fitting place for University receptions and other social events which are an important part of college life and training.

The upper part of the building is a continuation of the Gymnasium, a 6-foot running track and gallery, and a large reception room suitable for a Convocation Hall or additional class room.

The building is of the conventional style of architecture and will be an ornament to the campus in which the University may well take pride.

Abstract of Armory and Gymnasium warrants to date:

Disbursements.

501. The Spokesman Review	\$ 45 60
502. The Lewiston Tribune	21 00
503. The Capital News	15 00
504. The Statesman Printing Co.....	15 00
505. The Moscow Mirror	10 00
506. The North Idaho Star.....	6 70
507. J. E. Tourtellotte & Co.....	571 65
508. Williams & Griffin	1,307 00
509. Williams & Griffin	1,331 00
510. J. E. Tourtellotte & Co.....	62 07
511. Williams & Griffin	1,336 00
512. Williams & Griffin	993 00
513. J. E. Tourtellotte & Co.....	54 80
514. Williams & Griffin	1,045 00
515. J. E. Tourtellotte & Co.....	24 69
516. The Spokesman Review	3 20
517. The Teller Publishing Co.....	1 80
518. The Lewiston Tribune	3 60
519. Williams & Griffin	1,852 00
520. J. E. Tourtellotte & Co.....	43 58
521. Holley, Mason, Marks & Co.....	9 14
522. Freight and Express	4 55
523. Williams & Griffin	2,697 00
524. J. E. Tourtellotte & Co.....	63 45
525. Williams & Griffin	2,695 00
526. J. E. Tourtellotte & Co.....	63 41
527. Naylor & Norlin	600 00
528. Naylor & Norlin	318 90
529. Williams & Griffin	798 00
530. J. E. Tourtellotte & Co.....	18 79
531. Sundry Labor	17 30
532. Williams & Griffin	1,134 00
533. J. E. Tourtellotte & Co.....	26 68

REPORTS.

The following annual reports are required by Federal and State statutes:

Name.	By.	To.	Nature.
Morrill.....	Treasurer..	Sec. of Agr. and Sec. of Int..	Financial
Hatch.	Treasurer..	Same	Financial
University.....	President..	Same	General
Experiment Station..	Director....	Governor of Idaho.....	General
Annual Report.....	President..	Same	General

The Morrill report requires itemized statements for the following schedules: Agriculture, Mechanic Arts, English Language, Mathematical Science, Natural or Physical Science, Economic Science.

The Hatch report is itemized under the following heads: Salaries, Labor, Publications, Postage and Stationary, Freight and Express, Heat, Light and Water, Chemical Supplies, Seeds, Plants and Sundry Supplies, Fertilizers, Feeding Stuffs, Library, Tools, Implements and Machinery, Furniture and Fixtures, Scientific Apparatus, Live Stock, Traveling Expenses, Contingent Expenses, Building and Repairs.

FINANCIAL EXHIBITS.

The following exhibit of receipts and disbursements represents the division of the University's funds: (1) The U. S. Government Morrill Fund; (2) The U. S. Government Hatch Fund; (3) The State Maintenance Fund; (4) The Local Station Fund; (5) The Armory and Gymnasium Fund; (6) The University Improvement Fund. The two Federal Funds are herewith reported as closed up at the end of the fiscal year, June 30, 1904. The State Maintenance and Local Station Funds are reported as closed to date.

U. S. MORRILL FUND.

July 1, 1903-June 30, 1904.

Receipts.

To Morrill installment for 1903-1904.....4.....	\$25,000 00
Total available for year	\$25,000 00

Disbursements.

(As per Abstract, Government Report.)

By Agriculture	\$ 499 90
By Mechanical Arts	4,937 50
By English Language	5,008 50
By Mathematical Science	3,576 40
By Natural or Physical Science.....	5,925 00
By Economic Science	4,752 70
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Total expended during year.....	\$24,700 00
Balance unexpended	300 00
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	\$25,000 00

*U. S. HATCH FUND.**July 1, 1903-June 30, 1904.**Receipts.*

To Hatch Installment for 1903-1904.....\$15,000.00

Disbursements.

(As Per Abstract, Government Report.)

By salaries	\$ 8,284 80
By labor	2,462 06
By publications	536 45
By postage and stationery	150 09
By freight and express	216 74
By heat, light, water and power.....	.....
By chemical supplies	238 54
By seeds, plants and sundry supplies.....	264 08
By fertilizers .....	.....
By feeding stuffs	\$809 60
By library	108 67
By tools, implements and machinery.....	317 17
By furniture and fixtures	56 55
By scientific apparatus	445 38
By live stock	42 85
By traveling expenses	554 65
By contingent expenses	83 15
By buildings and repairs	429 22

Total expended during year.....\$15,000 00

REPORT OF THE BOARD OF REGENTS

*STATE MAINTENANCE FUND.**January 1, 1903-December 31, 1904.**Receipts.*

To Biennial Appropriation, 1903	\$42,000 00	
To Farm Improvement Fund	5,000 00	
To Farm Institute Fund	2,000 00	
To Regents' Traveling Expenses Fund.....	1,000 00	
To Interest on School Bonds	550 00	
To Departmental and Miscellaneous Receipts	237 69	
		<hr/>
Total maintenance		\$50,787 69

Disbursements.

By overdraft January 1, 1903.....	\$ 1,299 08	
By salaries	21,767 98	
By printing, catalogues reports and office supplies'..	1,903 01	
By fuel, light and water	7,150 84	
By traveling expenses, inspectors, etc.	1,894 00	
By regents' traveling expenses	1,214 20	
By insurance	2,514 50	
By building, supplies and furniture.....	1,728 76	
By farm improvements, stock, fences, etc.	3,393 87	
By farm institutes	1,003 02	
By miscellaneous labor and janitor supplied	1,112 06	
By horticultural supplies, grounds and buildings	2,651 07	
By scientific and laboratory equipment	2,771 27	
By library, military and musical supplies	1,778 93	
By freight, express, postage and telephone	1,221 48	
By litigation and miscellaneous fees.....	816 55	
Estimated bills, December, including salaries	1,250 00	
Estimated deficit, December 31st, 1904		5,182 93
		<hr/>
	\$55,970 62	\$55,970 62

*LOCAL STATION FUND.**January 1, 1903-December 31, 1904.**Receipts.*

To station receipts	\$2,029 84
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Disbursements.

By overdraft Jan. 1, 1903	71 42
By local station improvements	1,643 05
By balance on hand, December 31, 19.....	315 37
	<hr/>
	\$2,029 84

The Local Station Fund is derived from the sale of stock and produce from the farm and greenhouse and is used for improvements in the station.

*UNIVERSITY IMPROVEMENT FUND.**January 1, 1903-November 30, 1904.**Receipts.*

To Appropriation for University Improvement.....	\$18,000.00
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Disbursements.

By engineering supplies, electrical, mechanical and mining	\$ 5,518 96
By water system, well casing, pumping plant	1,601 50
By domestic science equipment	1,017 06
By traveling expenses and litigation.....	837 60
By purchase of land	750 30
By furniture, dormitory and mining department	323 40
By sundry repairs to equipment	241 61
By freight and express	85 80
Balance on hand	7,623 97
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	\$18,000 00

THE LIBRARY.

Since the last report there has been improvement in the condition of the library. The space has been doubled. The old room is devoted to books and their users, while the additional room adjacent has been made the reading room for college students. New periodical racks keep the periodicals in order and in good condition. Of the sum given by the State \$1200 has been spent during the bien-nium now closing. It was distributed as follows:

Reference books	\$350
Binding	235
Periodicals of general list	140
Departmental books	475

While this increase on what has gone before is encouraging the Library needs much larger funds.

The Library is the touchstone by which to try the University life. All departments are closely related to it, but to some it is essential. The departments of History, Economics, English, and Pedagogy, not to mention others, departments which in large measure set the standard of civic duty among the students, or stand in closest relationship to the schools of the State, departments whose vigorous life are essential to the growth of a well rounded University, amount to little unless they use as a laboratory a rapidly growing library receiving the necessary information which appears in a steady stream of new material in their respective fields.

Moreover it should be possible at the State University to find the fundamental books in every line of work. A worker anywhere in the State coming here should be able to find the printed record of what has been done in the field of his interest. Real as is this need on the part of

the outside student or investigator it is much more important in the University itself. Teaching is but a part of the duty of the University professor. His work must include research and the highest type of teaching can be done only by men carrying on research investigations along with their teaching. But for this a scholar's library is an absolute essential. This institution is to grow to the proportions of a true University and for this the next step is to develop the library.

A comparison with the expenditures of neighboring State Universities for the biennium 1902-04 will strengthen these statements. California spent \$55,773 for books alone of which \$24,600 came from gifts of citizens. This contains a suggestion to the liberal minded of Idaho. Few forms of public benevolence will produce better results than gifts to the Library of the State University. Nebraska University spent for books alone \$19,222 and in addition \$8,825 for administration of the Library. Washington State University spent for books during the same period \$9,500, and the State Agricultural College spent \$1,750 for the same purpose.

In the light of our needs and the examples of other states an appropriation of \$5,000 for the coming biennium is asked for with the conviction that no state money will be better spent.

METALLURGICAL BUILDING.

Probably no State in the Union is more favored with mineral wealth than Idaho. The gold recovered from placers of the State is conservatively estimated at \$250,000,000 in value, and the placers are still producing gold.

It is a comparatively short time since miners in this State began to turn their attention to "quartz mining," or ore in place; yet a single district, the Coeur d'Alene district, has produced over \$100,000,000 worth of metals. This district is at present producing about half of the lead being produced in the United States. It is difficult to determine the value of these mines; the improvements alone are valued for taxation at \$3,222,886.80. The amount of taxes paid in 1903 by the mines in this district was \$99,853.43. These mines employ 1800 men to whom they pay in wages \$2,268,000 per year. Gold, platinum, silver, lead, copper, zinc, nickle, cobalt, iron, mica, monazite, molybdenite, scheelite, coal, lime, clay, infusorial earth, marble, onyx, rubies, opals, diamonds, petroleum, and a large variety of building stones have already been discovered. For the economic development of these vast mineral resources, it is necessary to use all the knowledge that science and art have made available. It is of the greatest importance to the State to provide instruction, facilities, and apparatus to train young men to develop this natural wealth of the State. It is needless to say that the mining industry surpasses all other industries in the State. The development of these mineral resources will bring transportation facilities, attract immigration, and make a market for the products of all other industries.

Some years ago only mines having high grade ore could be worked at a profit, but such an improvement has been made in mining machinery and in the processes of extracting the metals that mines having low grade ore are now worked at a profit. To train men in the use of this improved machinery, and to educate and train them in

the new and improved processes of extracting the metals from the ore, it is necessary to have additional instructors, and to have a metallurgical laboratory equipped with machinery to treat ore by these processes. An appropriation of \$35,000 for a metallurgical laboratory would enable us to make a good beginning in this direction.

Many mines having low grade ore now lie idle or are abandoned because the ore can not be mined and milled at a profit. If the ore could be mined and milled for 50 cents or \$1.00 less, or if a higher percentage of extraction could be secured, many such mines could be worked at a profit. Men who can do this are in demand. Last year a mining engineer, working a Montana property, succeeded in mining and milling the ore at 40 cents per ton. He was immediately offered a position in South Africa at a salary of \$15,000 per year.

With few exceptions the large dividend paying mines of the world are mines having low grade ore. The largest gold producing mine in the world, the Homestead mine of South Dakota, paid \$12,422,350 in dividends from an ore that has an average value of \$3.50 per ton. The Anaconda Copper Company at Butte has paid \$23,250,000 in profits made out of mining, smelting, and refining an ore that carries a value of \$2.00 per ton. The Alaska-Treadwell gold mine, which made a net profit last year of \$1.09 per ton, has paid \$5,350,000 in dividends.

The department of mining and metallurgy was created by resolution of the Board of Regents during the year 1893-4. At the end of the school year of 1896 and 1897 the department had only two or three students. Since September, 1897, the growth and progress of the department

has been remarkable. The number of students that matriculated each year in the mining department for the four years' course is as follows:

1897-98	13
1898-99 (number in Spani-Amer. war).....	10
1899-00	15
1900-01	24
1901-02	27
1902-03	32
1903-04	35
1904-05 (Nov. 9th)	35

There will be about 40 registered before the close of the year.

This article is intended to show:

1. That mining is a very profitable industry.
2. That in Idaho is large mineral wealth which can be made a powerful factor in the material development of the State.
3. That instructors, facilities and machinery are necessary to educate and train men to develop this natural wealth.
4. That the mining industry, on account of its importance and the taxes it pays is entitled to this assistance.
5. That the department of mining and metallurgy has a large enrollment of students who desire to fit themselves for this work.
6. That the department of mining and metallurgy has done remarkably well while working under disadvantages, which is proved by the capability and efficiency of the graduates of this department. That this is a guaranty that still better results may be expected, if the necessary equipment and assistance are procured.

AGRICULTURAL EXPERIMENT STATION BUILDING.

A majority of the States of the Union have buildings which are used exclusively for Agricultural College and

Experiment Station work. A few have buildings set apart for station work alone; but in most cases the laboratories used for station work and class rooms used for agriculture are located in the same building, and it is believed that the two lines of work can be best served in this institution by a similar arrangement.

Other States are expending for such a building sums varying from fifteen thousand to two hundred and fifty thousand dollars. New York has just passed a bill giving Cornell University the latter sum for her agricultural building. Oregon has expended sixty thousand dollars in the erection and equipment of an agricultural building. The State of Washington has put eighty thousand into a similar building which would correspond to the building we are contemplating.

The building should provide for work in the following departments:

1. Animal Husbandry—

- a. Room for stock judging.
- b. Lecture room.
- c. Office or study.
- d. Rooms for creamery plant.

2. Agronomy—

- a. Soil laboratory.
- b. Plant laboratory.
- c. Office or study.

3. Horticulture—

- a. Lecture room.
- b. Green house.
- c. Laboratory.
- d. Work room.
- e. Office or study.

4. Plant Pathology and Bacteriology—
 - a. Two laboratories.
 - b. Office or study.
5. Entomology and Zoology—
 - a. Laboratory.
 - b. Office or study.
6. Chemistry.
 - a. Laboratory for station.
 - b. Laboratory for food work.
 - c. Office or study.
7. General Uses—
 - a. Room for Museum.
 - b. Director's office.
 - c. Station Library.
 - d. Photography room.
 - e. Store room.
 - f. Heating plant.

These are the principal needs which a building should supply. There are many minor details which will need to be provided for, such as closets, cloak rooms, etc.

A building to meet our present needs in those lines of work and such others as we should provide for in the near future will cost not less than fifty thousand dollars, and this is a small sum with which to provide for the great agricultural development of the State. The building should be two stories high, and basement full sized and finished. Of the sum mentioned above not less than \$5,000 should be reserved for furnishings and equipment.

FARMERS' INSTITUTES.

The Legislature of 1903 made a special appropriation of \$2,000 toward paying the expenses of those who were endeavoring to stimulate scientific interest in all the different branches of agriculture. Since then, upwards of thirty institutes have been held and nearly every portion of the State has been visited. These meetings are well attended and the greatest interest is manifested in the work that has been carried on. Particular attention has been given to stock breeding, dairying, forage plants and grasses, poultry, food adulteration, alkali conditions, orchard irrigation, and horticulture, including a study of the most injurious pests, moths and insects which are found in various parts of Idaho.

At present the work is carried on by the Station Staff, often at the expense of station work which must be suspended for the time occupied. An appropriation of \$3,000 for the biennium is needed to enable us to secure the assistance which is needed in this work. Many practical men in the State who have achieved success along certain lines, could be usefully employed during the institute season to assist in the programs at these meetings. In some cases these men have already contributed but their work has been gratuitous with but a small allowance for actual expenses. An increase in the appropriation from \$2,000 to \$3,000 would be of vast assistance in Institute Work.

THE DEPARTMENT OF DOMESTIC SCIENCE.

In 1902 the Department of Domestic Science was established and a course in Cooking offered, compulsory in the Freshman and Sophomore years and elective for all others.

Appropriation for the necessary equipment was made and the work which was purely experimental begun in a small way. Before the end of the first year its success was assured. The Department had outgrown its quarters and it was evident that a much larger equipment was required. To meet this a special appropriation of \$2,500 was made at the next session of the Legislature.

The difficulty at once arose of finding suitable rooms in which to install the new equipment and accommodate the increasing number of students and it became necessary to utilize the room in the Dormitory for this purpose. Under the personal supervision of the Vice President of the Board the money for extending the work was expended and an equipment for individual work provided. This equipment included kitchen utensils, china, glass, cutlery and table linen for dining room service, rugs, curtains, etc. To meet this expense about one-half of the \$2,500 was used, the remainder being reserved for future needs.

At the end of the second year the increasing interest made it advisable to further extend the work and this was done by offering a beginning course in sewing. Again the difficulty presented itself of securing a room suitable for this purpost. Temporary quarters, wholly inadequate, however, were found and classes were started.

The increasing demand for instruction in domestic science, the large number of young women desiring to take this course and the outside interest displayed by women throughout the State are all evidences that to meet these demands the time has come when a building of suitable size and arrangement is necessary. The work can not successfully be carried on under existing circumstances.

Such a building should be large enough to accommodate the entire plan embodied in a three or four years' course in domestic science. This includes cookery, sewing (which involves drafting, cutting, dressmaking and millinery), laundry work, home nursing and laboratory practice. The educational value of domestic science has been questioned more frequently than any other branch of manual training, although it is a study of the widest range. The idea of any connection between the school and the kitchen has until recently been thought inconsistent but the experience of the past three years has thrown new light on the subject and the need and benefit of an adequate system is felt.

The experiment of three years ago has brought gratifying results and patrons of the University are asking that the education of their daughters include both a liberal and technical training in the arts and industries. A practical demonstration of these new college ideals will raise the standard of living by placing the home upon a more solid and dignified plane and the State can confer no greater benefit upon its daughters than the provision of a building for domestic science where a school may be established to fit young women not only for home life but also for academic work in this branch throughout our public schools. The subject is worthy of earnest consideration.

THE MAINTENANCE FUND.

In two years of the closest economy the Maintenance Fund has proved insufficient to meet the most urgent needs of the University and there is a present deficiency in the fund amounting to \$2,500 annually. This deficiency is

not large relatively to the total income and expenditures of the institution and to the educational results obtained and is important chiefly in connection with the appropriation for the next biennium.

In the past two years no new item has been added to the fixed charges of the institution which was not included in the estimates presented to the last Legislature. There have been no additions to the Faculty and no change in the salary schedule. However, the cost of the separate organization of the Experiment Station and the cost of operating the present plant have been slightly in excess of our estimates and it is now seen that the provision for unforeseen and emergency expenditures, e. g. repairs to buildings, providing fire escapes, etc., was not adequate and should be increased in the next budget.

The estimates for the next biennium include an increase of \$15,000 annually, divided as follows:

To cover present deficit and meet existing changes in Maintenance fund	\$ 5,000
Library	1,900
Increase in Departmental Budgets.....	1,200
Additions to Faculty—Geology and History	2,400
Equipment of Armory	2,500
Buildings and grounds, sidewalks, etc.	1,000
Contingencies	1,000
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	\$15,000

In the College of Liberal Arts the needs of three departments, viz: Chemistry, Modern Language and History are presented as follows:

The chemical department is in need of larger and more commodious quarters, more apparatus, and more instructors. The department has at its disposal at present a combination office, library and balance room, three laboratory rooms, and a recitation room which is used in conjunction

with two other departments. One laboratory room is filled by two sections of the Freshman Class and two laboratory rooms are filled by the Sophomore Class. During the second semester of this year room for two additional courses must be provided. It is doubtful if this can be done under present conditions, and next year it will be quite impossible to carry advanced courses for students taking a characteristic or major in Chemistry.

The rooms in which the students work were never intended for laboratories but are simply low ceiling rooms fitted with desks and sinks. Many of the ordinary laboratory conveniences are lacking and ventilation is nearly impossible. The recitation room has in the past failed to accommodate the classes. A lecture room, one of the most important rooms of the laboratory, is entirely lacking. It also seems necessary to say that although precautions are taken to avoid accidents and prevent fire, nevertheless accidents due to the crowded rooms and poor ventilation have occurred and danger from fire can not be eliminated.

In the department of modern languages an additional instructor is urgently required, as at present two teachers are required to teach eleven sections in French, German and Spanish, and some of these sections (notably German I, German II A and B and German III) are so large that effective language drill is impossible, and this at the elementary stage when it is most important. One hundred and twenty-nine students in the College and Preparatory School are beginning German this fall. For elementary work classes should not exceed twenty students. Following is the registration for the above mentioned classes: German I, 41 students; German II A and B, 88 students;

German III, 42 students. These should in every case be divided. Besides this the instructors should have time for additional advanced courses for which there is already a demand.

For some time past it has been evident that more courses and hours of instruction in History should be offered in the College of Liberal Arts. At present one member of the Faculty gives half his time to United States and European History. This is obviously insufficient. It is recommended therefore that the work in History be practically doubled in amount and the Maintenance Fund be charged with the additional cost.

THE SERVICE OF THE UNIVERSITY.

It is difficult to estimate the service rendered by a University. Its contribution to education and economic progress can not be accurately measured. It is possible, however, to outline it in general terms. Briefly then the University of Idaho is making an earnest attempt to the full extent of her present resources to render the same service to the State of Idaho that other and older State Universities are performing in their respective States.

The entrance requirements, the educational standards in undergraduate work, the courses of study, the ideals of education are practically the same here as elsewhere and the cost per student is relatively low. There is noticeable only a larger liberality in the matter of electives and a wider range of choice for the individual student.

In the great national educational associations the University has been represented and has made its contribution to the national organization of education. The members

of the Faculty retain their membership in many of the learned societies of the country and attend their meetings as regularly as distance and their nearer duties will permit. Several members of the Faculty attended the summer sessions of the larger universities last year. Through the various Agricultural Associations of the Inland Empire the members of the Experiment Station have helped in the economic advancement of the Northwest. Since July 1, 1903, the station workers have conducted over thirty Farmers' Institutes in the different counties of the State. The attendance exceeded 5,000 and the new and improved methods of agriculture now under discussion or already adopted and the changing face of the farm lands of Idaho testify in large type to the economic value of the services rendered.

In the State Teachers' Association and the various Teachers' Institutes the members of the college faculty have emphasized the unity of our educational system by their ready co-operation with their fellow teachers in the public schools. By a regular inspection of all the high schools of the State the members of the Committee on Accredited Schools have given considerable assistance in the organization of secondary education through the State.

The reduction in railroad fares cuts distance in two for intending students, increases the attendance and efficiency of the institution, and makes strongly for a more perfect educational unity.

In numerous intercollegiate contests, debate, oratory, athletics, etc., the students of the University make a showing that is more than creditable. In skill and training they are equal to the best and are striving always for the first place.

But the chief function of a University is found in the correct, careful, and effective education of the students within its walls. The State sends its best students to the University. What kind of men and women does the University return to the State? Here lies the true and central service of any university. If it is found that the students of the University are well equipped in scholarship, stalwart in character and able to hold their own in professional and industrial competition, if they are capable, sound and successful men and women then it may be confidently held that the university is faithful in the performance of its main function, the correct education of its students. Perhaps it is not too much to say that the University has met the just expectations of those who are most deeply interested in her welfare.

If it is found, too, that the new conditions require the multiplication of educational facilities of every description, the enlargement of laboratories, the increase of the library, the addition of new courses of instruction, it may reasonably be expected that the Governor and Legislature of that State will make adequate provision for the services that the modern university is expected to render.



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